

# PHRONESIM

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[www.phronesim.com](http://www.phronesim.com)

# PHRONESIM Overview

**PHRONESIM:** Provide independent advice on engineering simulation strategy across multiple industry sectors worldwide, from smaller organisations through to blue chip multinationals.

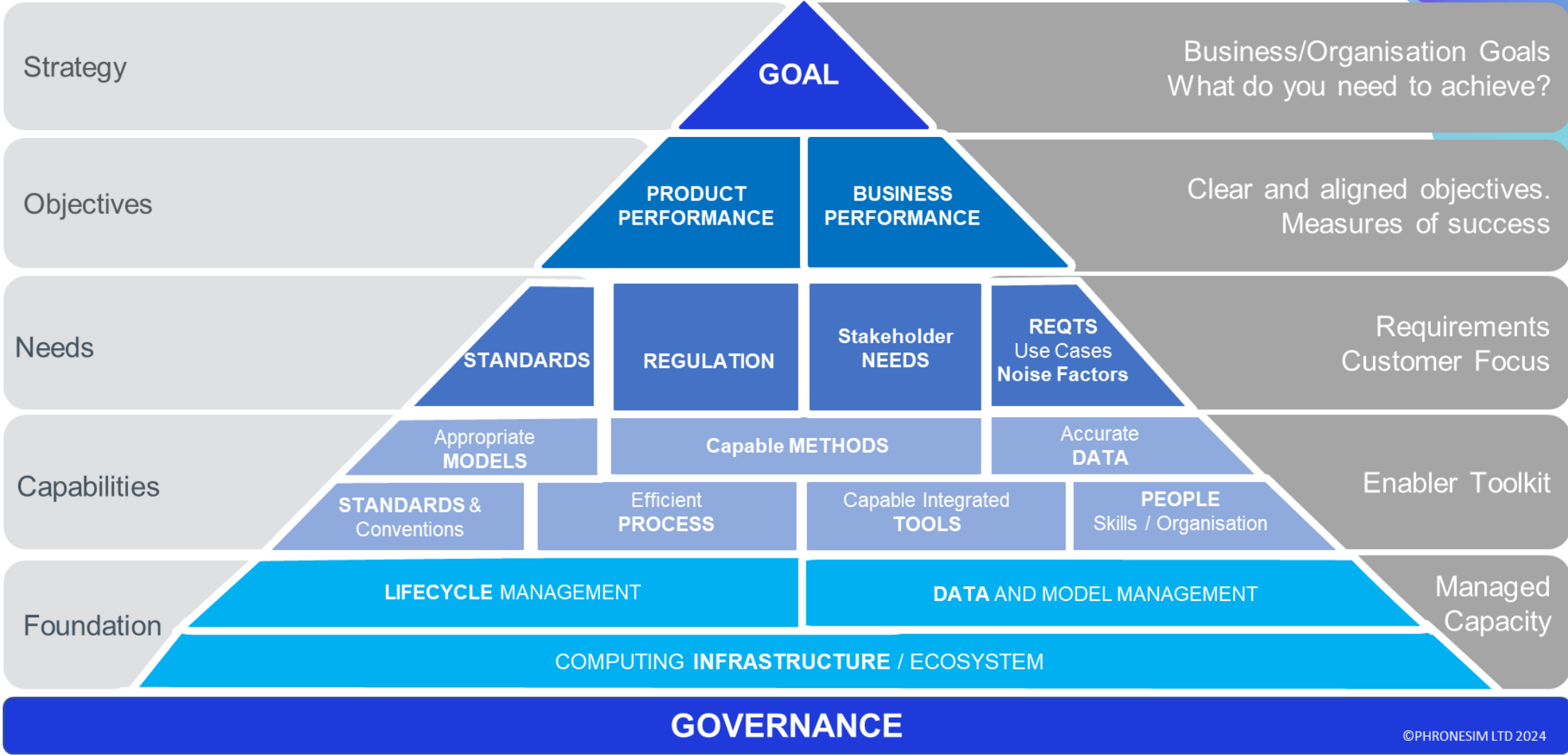
We help organisations achieve their business goals through simulation, assessing their current state, quantifying gaps, identifying improvement options, coaching the team, building and implementing simulation strategy.



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# Strategy Pyramid



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Building Blocks for Engineering Simulation Capability

# Steps in Digital Transformation & Strategy Implementation

Get Organised - Goals / Requirements / Needs

Current State Maturity / Gap Analysis

Gap Closing Actions / Improvement Options / Priorities

Roadmap / Business Case / Funding / Approval

Planning / Resourcing / Implementation/ Governance

Fundamental Steps to Build and Implement a Strategy or Digital Transformation

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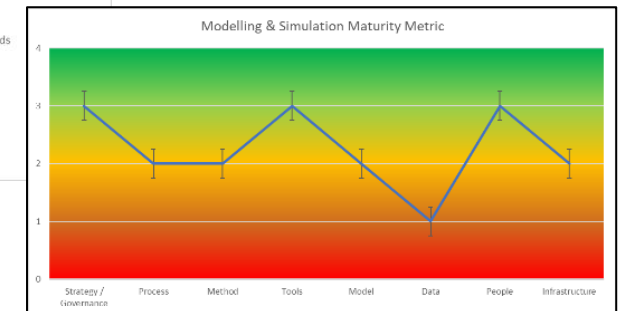


# Maturity Assessment Service

- An **independent assessment** of ALL aspects of your Modelling and Simulation capability
- Aligned to your product and business **goals**
- Uses an established **framework** to assess the status of your
- Provides a **standardised** score reflecting the level of maturity based on best practice **criteria**
- Identifies gaps and improvement **opportunities**
- Provides potential **improvement** actions and options

In conjunction with 

Aspect	Key Criteria	Maturity Level				
		0	1	2	3	4
		Insufficient Poor Confidence Limited Coverage (<25%) Ad-hoc No Plan No KPI	Needs Reviewed Low Confidence Partial Coverage (25-50%) Partially Applied Actions Identified Improvement Started	Comprehensive Medium Confidence Established/Aligned (50-75%) Fully Applied Improvement Plan In progress - On track	Embedded High Confidence Fully Implemented (75-90%) KPI Monitored Actions Complete Goals Achieved	Systemic/Innovator Certification Level Governed (90-100%) Maintained Continuously Improved Futured
Strategy	Comprehensive Aligned		ASSESSMENT			
Process	Efficient Aligned			ASSESSMENT		
Methods	Modular Validated			ASSESSMENT		
Models	Appropriate Representative Aligned Shared Managed		ASSESSMENT			
Tools	Queryable Connected				ASSESSMENT	
Data	Validated Traceable		ASSESSMENT			
People and Organisation	Ownership Clear Defined			ASSESSMENT		
Computing Infrastructure	Capacity Flexibility				ASSESSMENT	




An Independent Comprehensive Assessment of Simulation and Modelling Capability


# Maturity Assessment Benefits

Benefits of a Maturity Assessment	Impact							Criteria			
	Product	Process	Methods	Tools	Models	Data	People	Computing	Effectiveness	Efficiency	Cost
Optimise engineering simulation capability to deliver <b>more great product faster</b>	✓	✓	✓	✓	✓	✓			✓	✓	✓
Provides a metric to <b>quantify</b> current <b>status</b> for the core M&S elements		✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Benchmark</b> your organisation against best practice <b>criteria</b>		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Identify strengths, <b>constraints</b> , <b>weaknesses</b> , and <b>opportunities</b> affecting your M&S		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Build <b>confidence</b> in and <b>expand</b> your M&S capability	✓	✓	✓	✓	✓		✓		✓		✓
Maximise <b>collaboration</b> and <b>sharing</b> .	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Improve development <b>efficiency</b> and <b>speed</b> .	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Reduce</b> development and product <b>costs</b> . Reduce tool costs	✓	✓		✓			✓		✓	✓	✓
<b>Target</b> and <b>prioritise</b> investment and improvement actions. Measure impact and progress.		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Prepare</b> for the <b>future</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

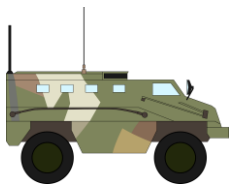
### Example Clients



US Multinational  
Consumer Goods  
Company



UK Performance  
Luxury Car  
Manufacturer



Government defence  
research establishment

In conjunction with 

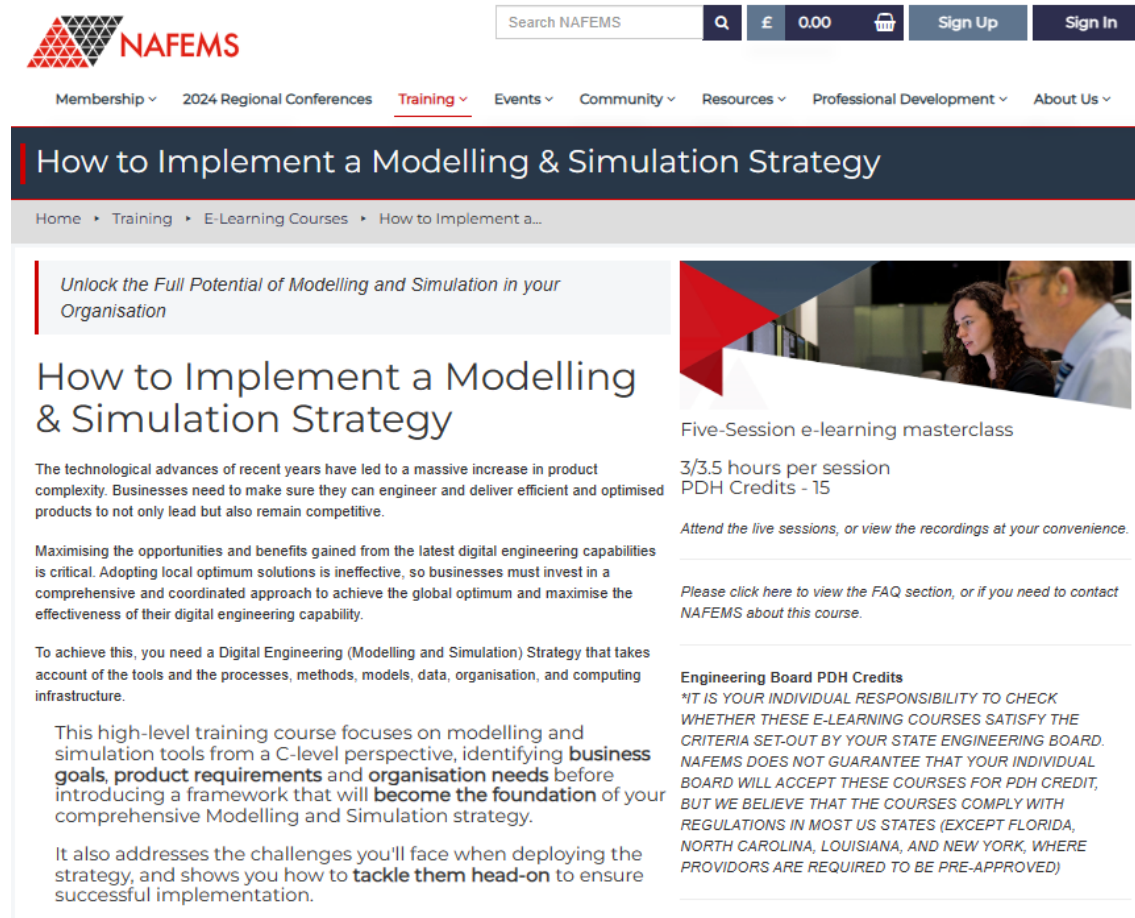


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# TRAINING and COACHING

- Business Goals
- Assessing Current State
- Fundamental Elements
- Critical Criteria
- Improvement Actions
- Business Case
- Practical Implementation



The screenshot shows the NAFEMS website header with a search bar, currency (£), and price (0.00). The navigation menu includes Membership, 2024 Regional Conferences, Training (highlighted), Events, Community, Resources, Professional Development, and About Us. The main content area features the course title 'How to Implement a Modelling & Simulation Strategy' with a breadcrumb trail: Home > Training > E-Learning Courses > How to Implement a... A sub-header reads 'Unlock the Full Potential of Modelling and Simulation in your Organisation'. The course description states: 'The technological advances of recent years have led to a massive increase in product complexity. Businesses need to make sure they can engineer and deliver efficient and optimised products to not only lead but also remain competitive.' It further explains that maximizing digital engineering capabilities is critical and that the course provides a framework to become the foundation of a comprehensive Modelling and Simulation strategy. It also addresses deployment challenges. The course is a five-session e-learning masterclass, 3/3.5 hours per session, with 15 PDH Credits. A disclaimer states: 'Engineering Board PDH Credits: IT IS YOUR INDIVIDUAL RESPONSIBILITY TO CHECK WHETHER THESE E-LEARNING COURSES SATISFY THE CRITERIA SET-OUT BY YOUR STATE ENGINEERING BOARD. NAFEMS DOES NOT GUARANTEE THAT YOUR INDIVIDUAL BOARD WILL ACCEPT THESE COURSES FOR PDH CREDIT, BUT WE BELIEVE THAT THE COURSES COMPLY WITH REGULATIONS IN MOST US STATES (EXCEPT FLORIDA, NORTH CAROLINA, LOUISIANA, AND NEW YORK, WHERE PROVIDORS ARE REQUIRED TO BE PRE-APPROVED)'. A link to the FAQ section is provided.

- 5 Courses delivered
- >150 Delegates
- >100 Organisations
- >20 Countries

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# IMPROVEMENT ACTIONS

Essential Element	Potential Improvement Actions
Strategy	<b>Clear Goals for M&amp;S. Comprehensive</b> strategy. <b>Funded</b> improvement <b>roadmap</b> . Leadership <b>ownership</b> and support. <b>KPI Metrics Dashboard</b>
Process	<b>Documented</b> and <b>Aligned</b> to overall product process. Efficiency <b>reviewed</b> . Process <b>Automation</b> .
Methods	Method <b>Confidence Metric</b> applied. Integrated <b>Quality</b> Controls.
Tools	Tool <b>Strategy</b> in place. <b>Requirements</b> and status audit.
Models	Model <b>Strategy</b> . Modelling standards and best practices. Modelling plan aligned to requirements
Data	Data Management <b>Strategy</b> (standards, verification) Data <b>Maturity Metric</b> adopted. Simulation Data Management [ <b>SDM</b> ] adopted.
People and Organisation	Skill <b>Requirements</b> analysis. Skills <b>audit</b> and development plan ( <b>Certification</b> ) Strategy <b>Governance</b> organisation in place.
Compute Infrastructure	Sufficient compute <b>Capacity</b> . <b>Performance</b> monitored. Demand forecasting and capacity planning. Latest <b>technologies</b> reviewed.

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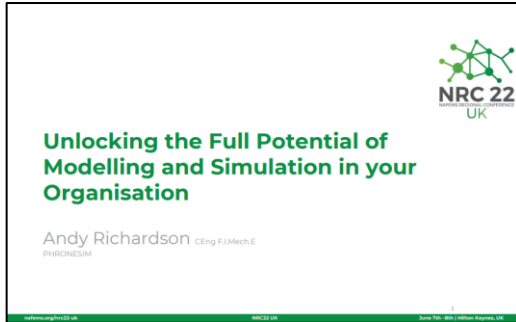
# STRATEGY IMPLEMENTATION



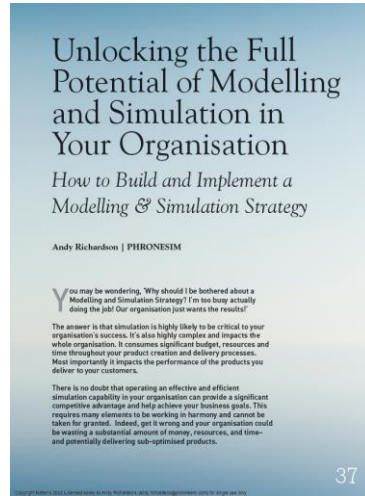
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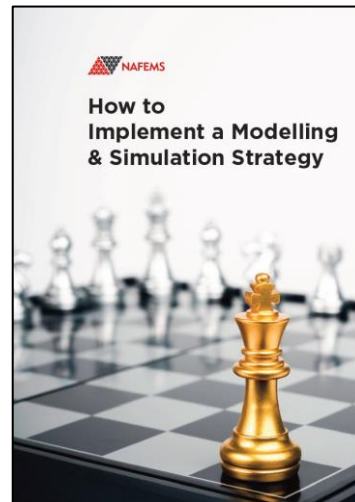
# Presentations and Publications



[06-22 UK Conference Present](#)



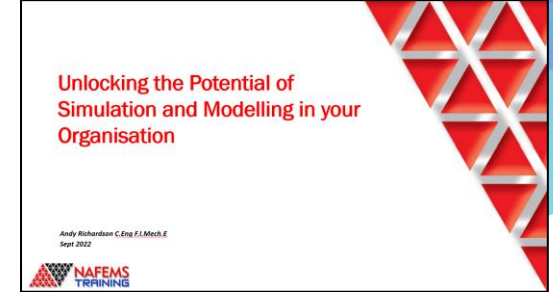
[07-22 Benchmark Magazine](#)



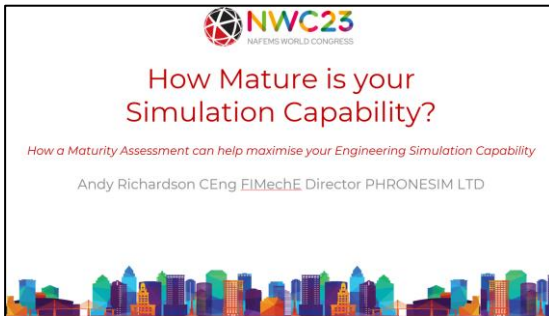
[08-22 Brochure](#)



[IMechE Sim & Mod 22](#)



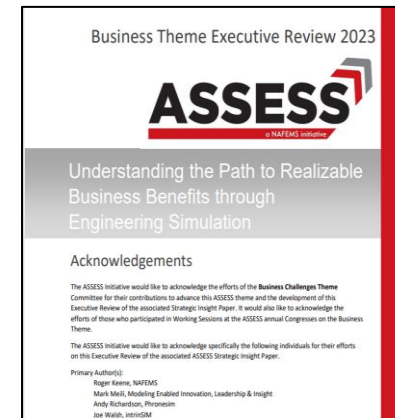
[09-22 Webinar](#)



[05-23 World Congress Presentation](#)



[09-23 Food and Drink Conference](#)



[12-23 Assess Strategic Insight Paper](#)



[02-24 Webinar](#)



# About the Founder

- Andy Richardson - Founder and Director of PHRONESIM LTD
- A UK based company providing consulting in Engineering Simulation Strategy internationally
- Chartered Engineer and Fellow of the Institution of Mechanical Engineers
- 30 yrs experience in automotive engineering at Jaguar Land Rover with 20 years in Senior Management including 10 years as Head of Simulation, and several Vehicle Engineering leadership roles
- 2 years as Senior Manager for Airframe Methods and Tools at Airbus
- BSc in Engineering, a MSc in Numerical Modelling (Aston Uni), and MBA (Warwick )
- Member of the NAFEMS UK Steering Committee and Assess Business Theme





# Thank You

**PHRONESIM Ltd**

ENGINEERING SIMULATION STRATEGY SOLUTIONS

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